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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,242	12/01/2000	Christopher Cosgrove Creagan	13451	2514

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EXAMINER

WEBB, JAMISUE A

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 05/09/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/728,242	<b>Applicant(s)</b> CREAGAN ET AL.	
	<b>Examiner</b> Jamisue A. Webb	<b>Art Unit</b> 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>11</u> | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1-8, and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (5,350,370) in view of Mukaida et al. (5,672,419).

4. With respect to Claims 1, 2, 4-6, and 16-20: Jackson discloses the use of an absorbent material that comprises 50-90 percent superabsorbent, and the material being compressed to form a density of about 0.1 to 0.5 grams per cubic centimeter (see abstract). Jackson also discloses the material being swellable when wet (column 6, line 44).

5. Jackson discloses the use of 3-30 % of pulp fiber which can be in crimped staple form (Column 6, lines 10-12), however, does not disclose that the absorbent material comprises a thermoplastic fiber. Mukaida also shows that organic synthetic staple fibers such as

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bicomponent fibers in a side by side arrangement and made of polyvinyl alcohol and polyethylene or polypropylene, is an equivalent structure known in the art (see column 5, lines 11-35). Therefore, because the pulp fibers and bicomponent fibers were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the organic bicomponent fiber for the pulp fiber.

6. With respect to Claim 3: Mukaida discloses that the thermoplastic fibers can be a polyurethane-based fibers (column 5, lines 11-25), which is an elastomeric fiber

7. With respect to Claim 7 and 8: Jackson discloses the use of adhesive sprays as a binder (column 6, line 21).

8. With respect to Claim 12-15: Jackson discloses the absorbent material to be of use in diapers, training pants, incontinence garments, sanitary napkins, bandages and the like (see column 3, lines 9-11).

9. With respect to Claim 11: Jackson discloses that the superabsorbent material swells but does not specifically state that the material swells 50%. At the time the invention was made, it would have been an obvious matter of design choice to have to absorbent material swell 50%, since applicant has not disclosed that the 50% swell provides an advantage, is used for a particular purpose or solves any stated problem. One of ordinary skill in the art, furthermore, would have been expected Applicant's invention to perform equally well with the swelling taught by Jackson or the claimed 50% as taught by Mukaida because both swellings occur to increase void space to absorb fluid. Therefore, it would have been an obvious matter of design choice to modify Jackson to obtain the invention as specified in Claim 11.

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10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson and Mukaida as applied to claim 1 above, and further in view of Pike et al. (5,382,400).

11. Jackson and Mukaida fail to teach the crimped thermoplastic fibers, being mechanically crimped. Pike discloses the use of helically crimping fibers used in non-woven webs using a process that involves heating to activate the crimp (See abstract and column 3, lines 27-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the crimped fibers of Jackson and Mukaida, be helically crimped using the process of Pike, in order to provide the non-woven web with desirable combinations of physical properties such as softness and strength. (see Pike, column 3).

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson and Mukaida as applied to claim 1 above, and further in view of Tsai et al. (5,401,446).

13. Jackson and Mukaida, fail to teach the absorbent material having an electret charge. Tsai discloses a method of electrostatically charging a web by subjecting the web to an electric field, and to where the polarity of the field is reversed, relative to the web. (see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have absorbent material of Jackson and Mukaida, have the electret charge, as disclosed by Tsai, in order to make the web bipolar, and therefore show high filtering efficiency. (See Tsai column 4).

***Response to Arguments***

14. Applicant's arguments filed 2/26/03 have been fully considered but they are not persuasive.

15. With respect to Applicant's argument that staple fibers are not crimped: The examiner has clarified the rejections to clarify the recitation of crimped files.

16. With respect to Applicant's argument that cellulose pulp and synthetic thermoplastic bicomponent fibers are not equivalent or interchangeable: Jackson is forming a product by mixing the superabsorbent with pulp to show an improvement over conventional type articles. The "pump" part is not the inventive concept of Jackson, it is the mixture of both materials within one layer that is. Jackson states that synthetic materials are also considered within the scope of the invention (in replacement of the cellulose pulp fibers) (Column 4, lines 19-24). Mukaida discloses the particularly preferred material are the cellulose fluff pulp and the thermoplastic bicomponent fibers or mixtures of the two because of their excellent shape retaining property after water absorption (column 5, lines 36-43). So Mukaida discloses that the cellulose pulp and the thermoplastic material have both excellent shape retaining properties and either one can be used for this purpose, therefore both are interchangeable. Jackson also discloses pump and synthetic fibers are interchangeable, therefore it is the examiner's position that they are art related equivalents and can be interchangeable in the combination of the Jackson and Mukaida references.

17. With respect to Applicant's arguments that 50% swelling is not a matter of design choice: Applicant has argued that it is preferred to have 50% swelling in order to increase the void volume and the material can be softer and flexible. The specification clearly states that the 50%

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is not a requirement in the invention, but that it does create an increase in void volume. As stated above Jackson discloses the swelling of the compressed material, which would inherently produce an increase in void volume. Furthermore, the specification is merely stating the material itself is causing the softness and flexibility, the expansion of 50% is not what creates the softness. Therefore, arguments are not persuasive and rejection stands as stated above.

### *Conclusion*

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamisue A. Webb whose telephone number is (703) 308-8579. The examiner can normally be reached on M-F (7:30 - 4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (703)308-1957. The fax phone numbers for the


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organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

jaw   
April 30, 2003

  
**WEILUN LO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**